

ILLEGIB

Approved For Release 2001/03/30 : CIA-RDP78T05439A000400160015-8

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DECLASSIFICATION REVIEW by NIMA/DOD 4/7/00

~~TOP SECRET CHIESS RUFF~~

HANDLE VIA
TALENT-KEYHOLE
CONTROL SYSTEM ONLY

TCS - 7705/64
IB - 330/04
24 August 1964
CMT 1 7

MEMORANDUM FOR: Chief, Manufacturing and Services Division, ORR

25X1A ATTENTION : [REDACTED] IE/CST
THROUGH : Chief, Requirements Branch, Reconnaissance Group, CGS
FROM : Chief, CIA/PID (HPIIC)
SUBJECT : Various Tibet Road Studies
REFERENCE : (1) ORR Requirement No. C-RR2-80,753
(2) CIA/PID Project No. C 1565-63

1. This memorandum is in response to the above referenced requirement which requested the alignment and condition of various roads or well defined tracks in the Hsasa Area. All roads and trails described in this memorandum are delineated on graphics CIA/PID/IB-P-1182/64 thru P-1189/64.

2. Roads extending from Tsetang (29 15N - 91 46E) to Tsela Dzong (29 25N - 91 21E).

A two-lane improved road was observed extending southwest from Tsela Dzong (29 25N - 91 21E) along the south bank of the Tsangpo River on photographic

25X1D graphic [REDACTED] This road was not evident on photo- 25X1D

25X1D graphic [REDACTED] However, on [REDACTED] the bridges were well advanced in construction and the roadbed appeared to be completed. 25X1D

the roadbed and all bridges were complete and serviceable to the western limits of photography at Orang (29 46N - 93 52E). Eastward from Tsetang there is no photographic evidence of a road. However, photographic 25X1D

25X1D [REDACTED] shows a pack trail proceeding along the south bank of the Tsangpo River between Tsetang and Gyetsa Dzong (29 12N - 92 43E). Paragraph No. 11 contains a list of all photographic missions used in this study together with the dates on which the photography was taken. All the above referenced roads are shown on attachment No. 1.

3. Road extending from Hsahang Dzong (28 04N - 91 03E) to Kangar (28 39N - 89 46E).

GROUP 1
Excluded from automatic
downgrading and
declassification

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5-14514

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TCE - TTEG/04
Page 2

No thru roads were observed connecting Lhakhang Dzong to Kangsar. A road did extend from Gyatsa Dzong (28 50N - 89 15E) to Langra (28 54N - 90 20E), then south to Linda (28 27N - 90 37E), where it appeared to end. There are many local trails around Lhakhang Dzong (28 04N - 91 03E), some of which cross the border. However, none of these appear to connect with roads from the north. Attachments No. 1 and 5 show all the roads and trails described in this paragraph.

4. Roads extending from Nagchuka Dzong (31 28N - 92 00E) to Chang-tu (31 09N - 97 15E).

There was no evidence of a through road between the above referenced towns which could be observed on aerial photography. However, there is an area of no-photo-cover as delineated on attachment No. 1. A road and a jeep trail were seen extending eastward from Nagchuka Dzong (31 28N - 92 00E). However, the road appeared to end at Onchangrangyigu (31 50N - 92 40E), and the trail ended at 31 35N - 93 25E. A road and trail network extended from Chang-tu. However, the only road leading west ended near Bata (31 07N - 96 45E). Some local trails evidently extended further west, but they did not join the road from Chang-tu. There is no recent TALENT coverage on the area between Nagchuka Dzong and Chang-tu and the area was snow-covered on all KEYHOLE Missions. Attachments No. 1 and 2 show all roads described in this paragraph.

5. Roads extending south and east from Tsetang (29 15N - 91 40E) to Trala Dzong (29 25N - 94 21E) road.

All roads and trails extending from the above referenced road are depicted on attachment No. 1. Roads or trails were evident southward from the following points: Tsetang, Rang (29 14N - 92 03E), and Trala (29 05N - 92 55E). There is no recent TALENT photography covering the area from Orang (29 00N - 93 52E) to Gyatsa Dzong (29 12N - 92 43E).

6. Roads extending from the Nagchuka Dzong (31 28N - 92 00E) to Chang-tu (31 09N - 97 15E) road. No roads were observed in the above referenced area.

7. Roads existing in the area toward the border from 94 30E - 96 00E.

25X1D No roads or well defined tracks were observed in this area. The area was covered by photographic [REDACTED] on good, clear photography.

8. Roads in the area toward the border from [REDACTED] 25X1D

No thru roads were observed in this area. There were many trails located on the hills surrounding Lhakhang Dzong (28 04N - 91 03E), some of which crossed the border. However, these were not plotted due to lack of map detail. The area was covered by photographic [REDACTED] on good, clear photography.

25X1D

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TCS - 7766/04
Page 3

9. New major construction in this general area was as follows:

a. The new road extending southwest from Tseia Daeng as described in paragraph No. 2.

b. The new bridge at Ihren U/C as shown on photo Attachment No. 6.

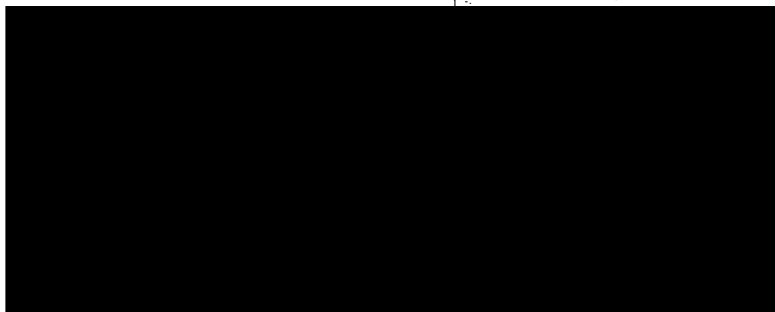
c. The new bridge at Khate, which was recently constructed, as shown on photo Attachment No. 8.

d. The new bridge at Ihuntre Dz (28 25H - 92 25E) U/C not shown.

10. All town names and coordinates were taken from ABE 1:1,000,000 Maps as indicated in the attachments.

11. The following photography was scanned in compiling data for this report:

25X1D



25X1A

12. The analyst assigned to this project was [REDACTED], who may be contacted on extension 2546 should you have any questions concerning this project. This is considered a complete answer to the requirement.

[REDACTED] 25X1A

Enclosures:

- 5 - Annotated Overlays
(CIA/FID/IB-P-1182/04 thru P-1185/04)
- 3 - Annotated Photographs
(CIA/FID/IB-P-1187/04 thru P-1189/04)

TOP SECRET CHESS RUFF

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"S-14514"

TOP SECRET CHS

25X1D

WINDY CREEK BRIDGE

WINDY CREEK BRIDGE

TOP SECRET CHS



TOP SECRET CHESH

BRIDGE

BRIDGE

25X1D

BRIDGE AND BRIDGE

CIA, FBI/IR-

FOUO

ATTACHMENT #0

TOP SECRET CHESH

5-14514

REF ID: A65045
SHEET NG 45
REV 1301



TLI	Road
SLI	Two Lane Improved
SLU	Single Lane Improved
BR	Single Lane Unimproved
FY	Bridge
FD	Ferry
JT	Ford
PT	Jeep Trail
O	Pack Trail
SEI/SLU	End Photo Cover
	Change in Road Type

RELATIVE RELIABILITY
Exactitude relative

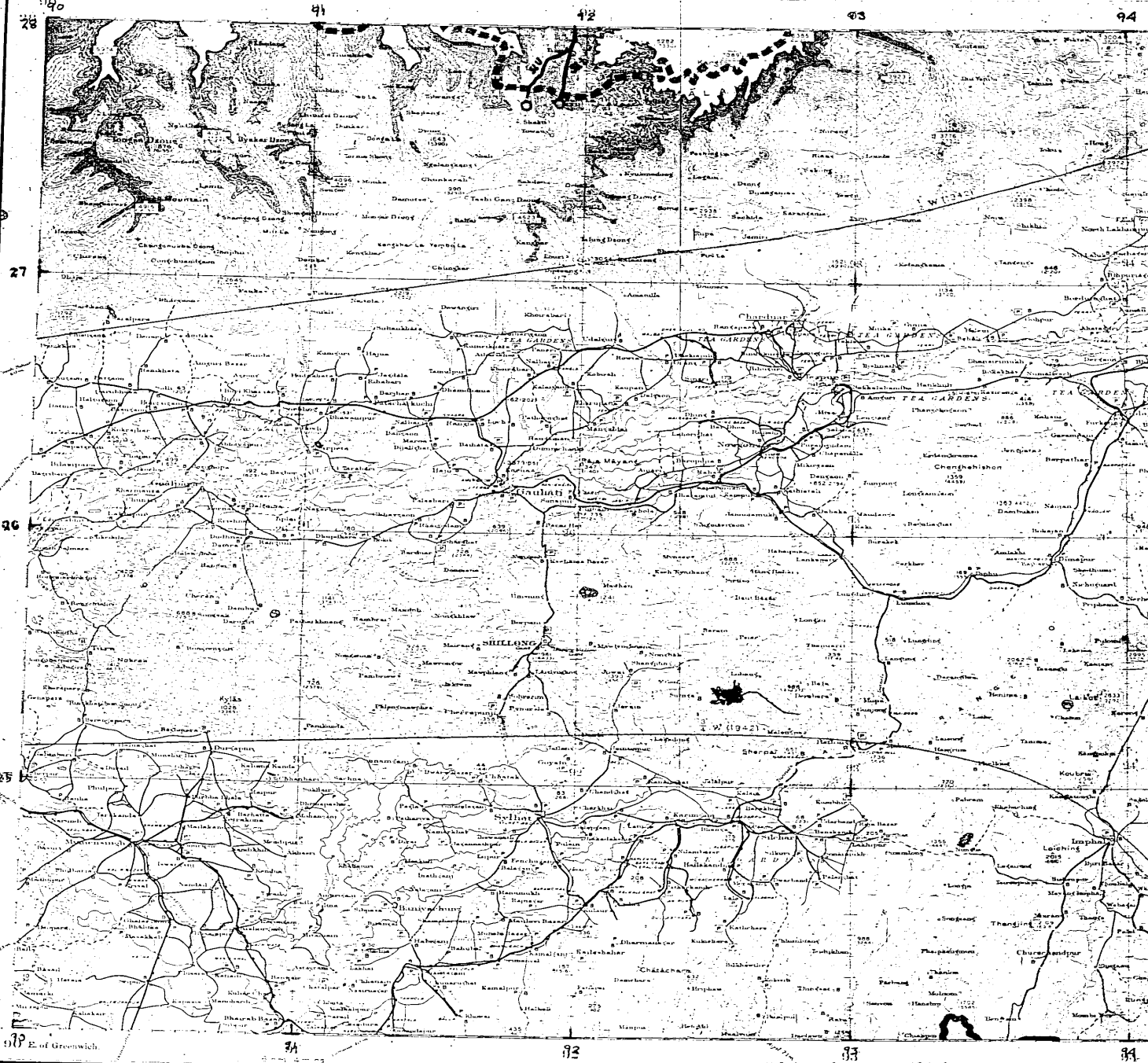
- Route principale avec tunnel
- " secondaire avec pont
- de transport dans les zones

- Route principale avec tunnel
- " secondaire avec pont
- de transport dans les zones

ASIA 1:1,000,000

3-14514

ASSAM TOP SECRET-CHESSE-RUFF



1942 321
1942 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

CIR/PID/18-PII84/64
AT TACHMENT NO. 3

English miles 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

Scale (Graphic) 1:1,000,000

TOP SECRET-CHESSE-RUFF

SHILLONG

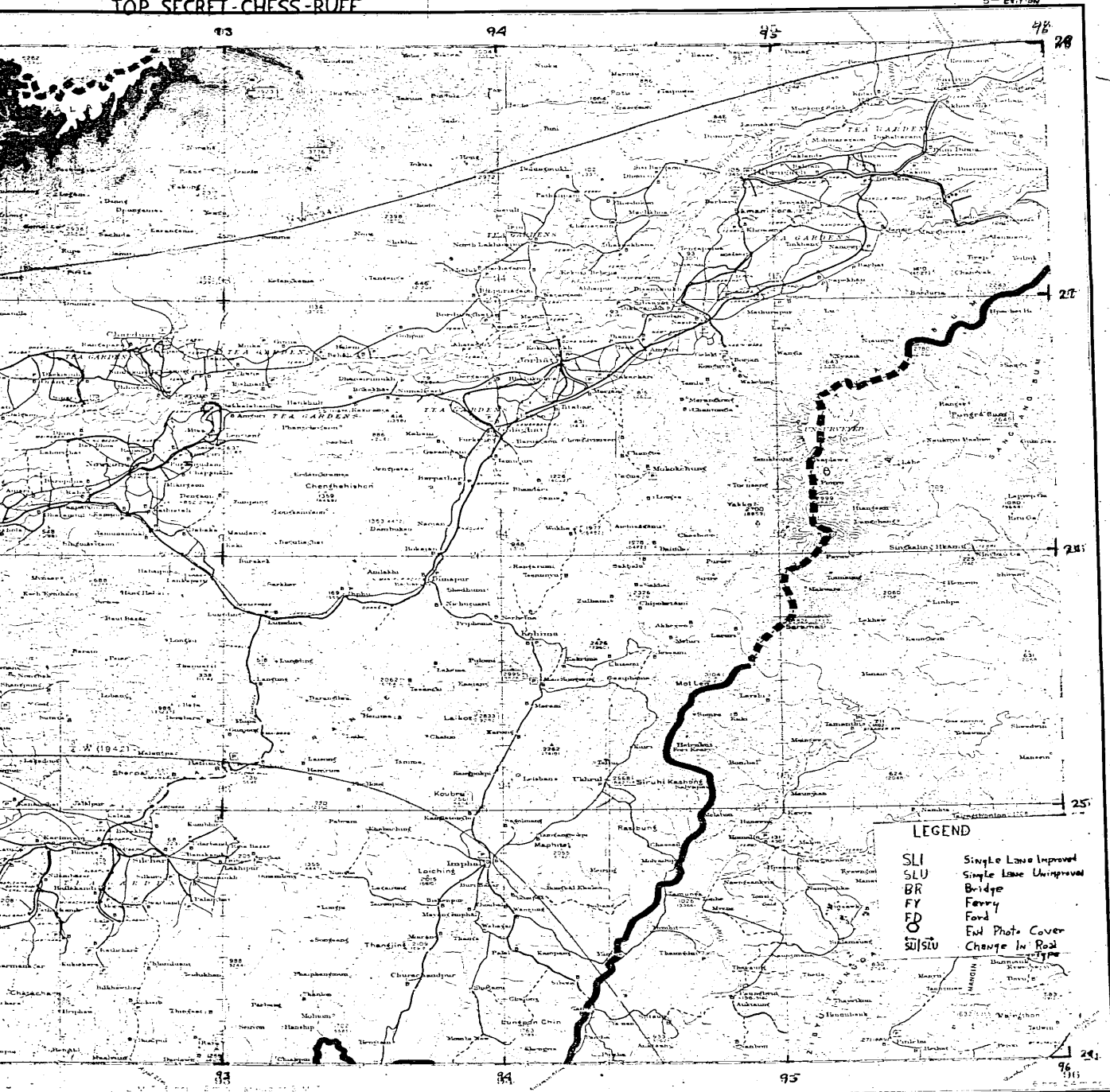
Shillong

ASSAM **TOP SECRET - CHESS - RUFF**

ISS NO 7766/64
 FIFTH EDITION
 18 MEMO - 18-336/64

NG 46
 5th EDITION

REFER TO THIS MAP AS - HIND 5000
 SHEET NG 46 FIFTH EDITION



- LEGEND**
- SLI Single Lane Improved
 - SLU Single Lane Unimproved
 - BR Bridge
 - FY Ferry
 - FD Ford
 - FO Owl Photo Cover
 - SLU Change in Road

MAGNETIC VARIATION
 Annual change negligible



Scale 1:1,000,000
 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Miles
 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Kilometers
TOP SECRET - CHESS - RUFF

Printed for D. Survey (WO and AM) by Ordnance Survey
 REFERENCE



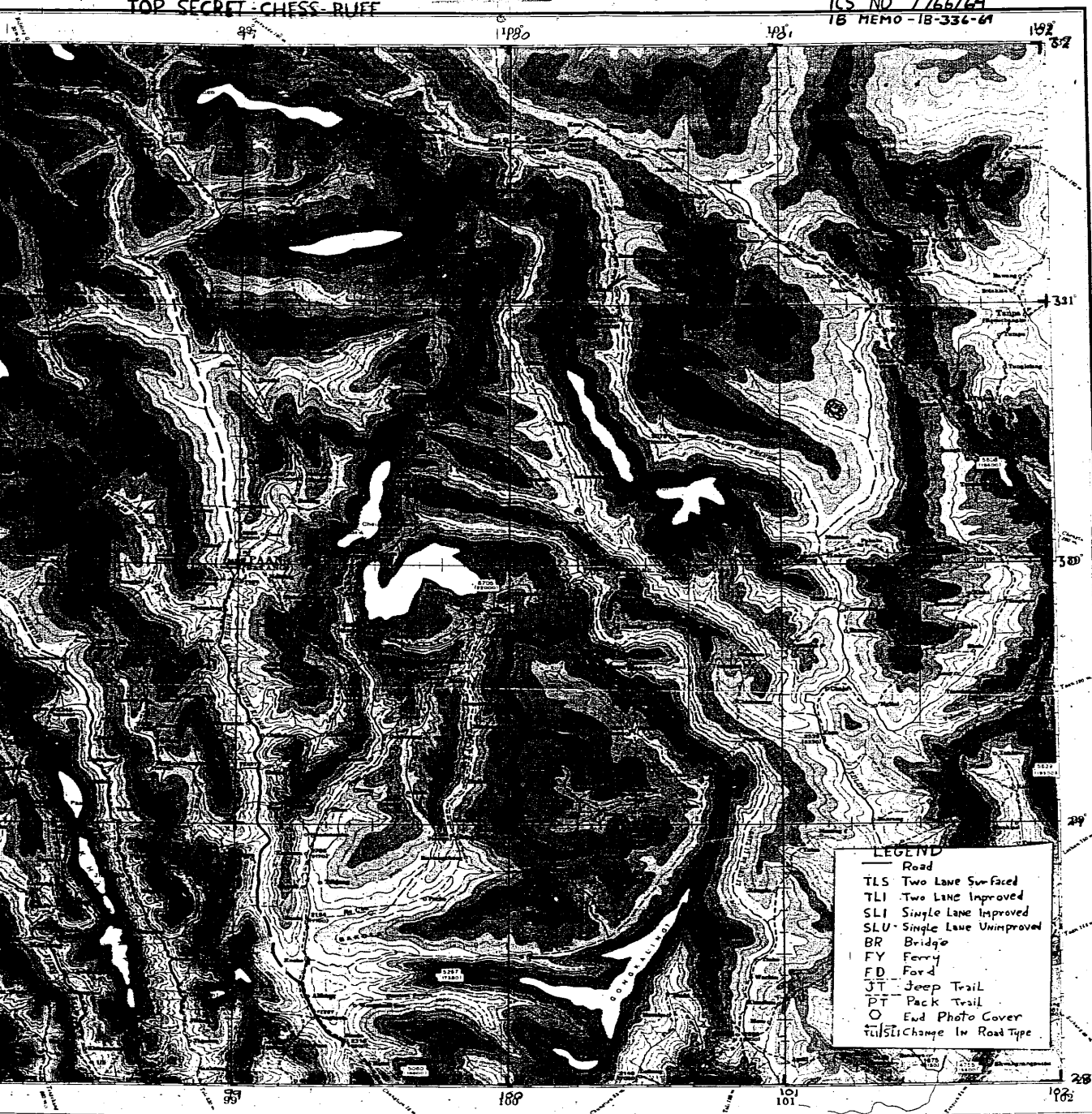
UPPER MEKONG

TOP SECRET - CHESS - RUFF

EDITION 1-AMS

REFER TO THIS MAP AS:
SHEET NH 47

TCS NO 7766/64
18 MEMO-18-336-61

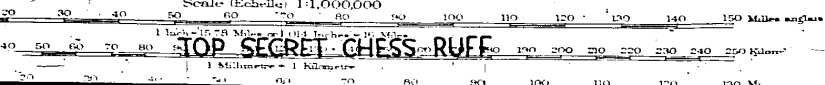


- LEGEND**
- Road
 - TLS Two Lane Surfaced
 - TLI Two Lane Improved
 - SLI Single Lane Improved
 - SLU Single Lane Unimproved
 - BR Bridge
 - FY Ferry
 - FD Ford
 - JT Jeep Trail
 - PT Pack Trail
 - O End Photo Cover
 - Change in Road Type

VERTICAL SCALE
FEET METERS



Scale (Echelle) 1:1,000,000



1 Inch = 63 Miles / 101 Kilometers

1 Millimetre = 1 Kilometre

1240 PRINTED BY ARMY MAP SERVICE, CORPS OF ENGINEERS

REFERENCE

Boundary international, demarcated
"where double line" undemarcated
single line with station and bridge
Telegraph line, not about road
along road

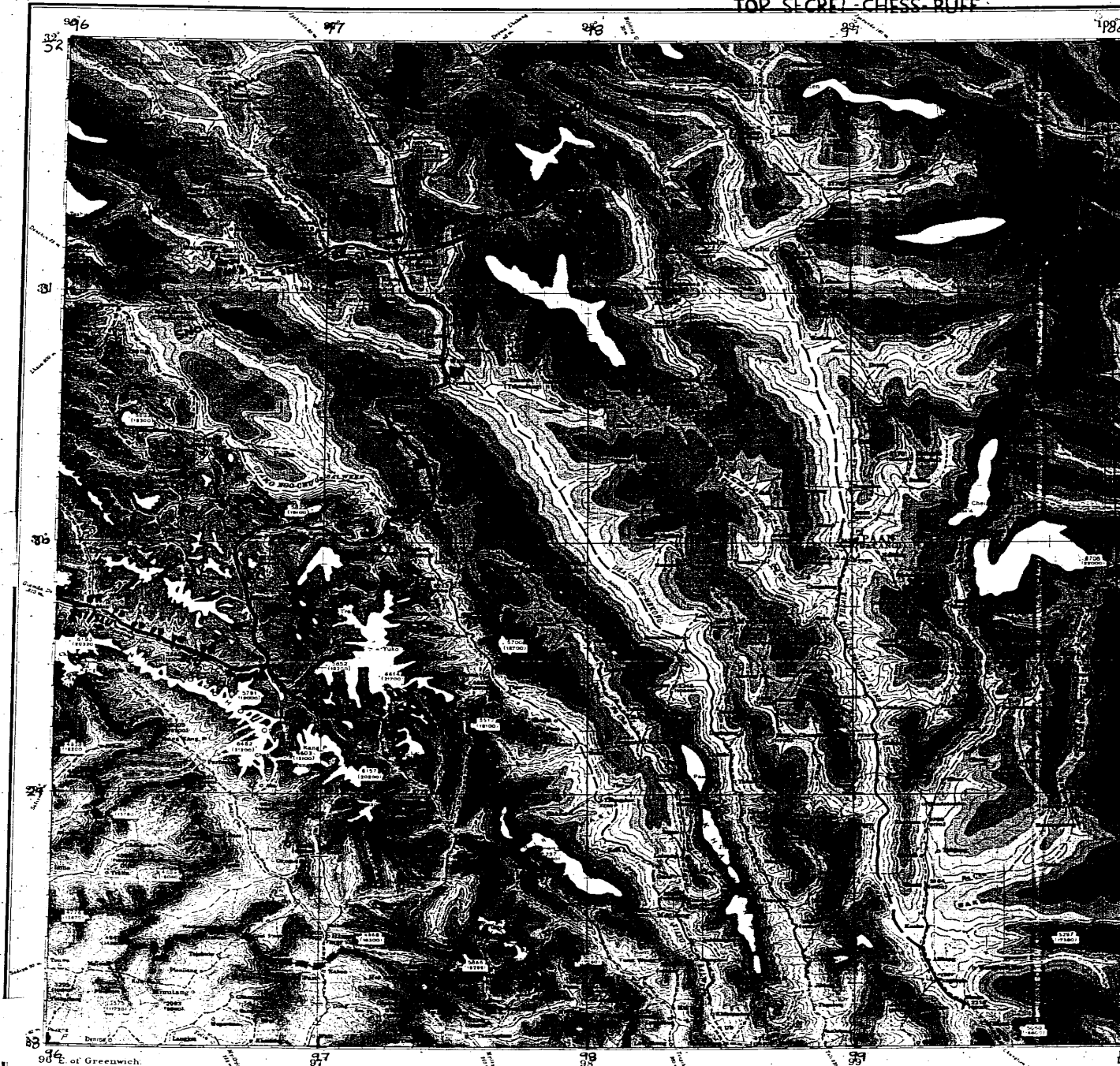
Frontière internationale, délimitée
"où double ligne" non délimitée
à l'échelle unique avec gare et pont
Ligne télégraphique ne servant pas une route
le long d'une route



WORLD (ASIA) 1:1,000,000

UPPER MEKONG

TOP SECRET - CHESS - RUFF



1301
Edition 1-AMS

CIA/PID/18/P1183-64
ATTACHMENT No 2

REFERENCE

(Legend)

Mountain Range Important peak Hill
Pass Gorge Valley Prairie Plateau
Cape Island
Name of capital of country, major city
Name of province

Montagne Chaîne Per important Colline
Col Gorge Vallée Prairie Plateau
Cap Ile
Nom de capitale d'un pays, ville majeure
Nom de province

DORJE SHIGA
Kangri Karze
PAAN

English miles 10 5 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

Kilometres 10 5 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

Nautical miles 10 5 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

Scale (Echelle) 1:1,000,000

1 inch = 63.36 Miles = 101.3 Kilometers

1 Mile = 1.609 Kilometers

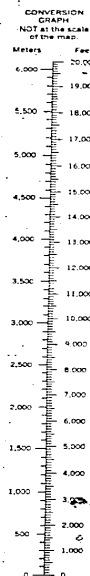
1 Kilometer = 0.621 Miles

TOP SECRET - CHESS - RUFF

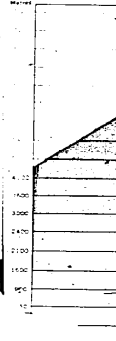
FIRST EDITION-AMS 2

TCS NO. 7766/64
IB MEMO - IB-336/64

N. H-46



A. J. VAN DER VEGE



TOP SECRET - CHESS - RUFF

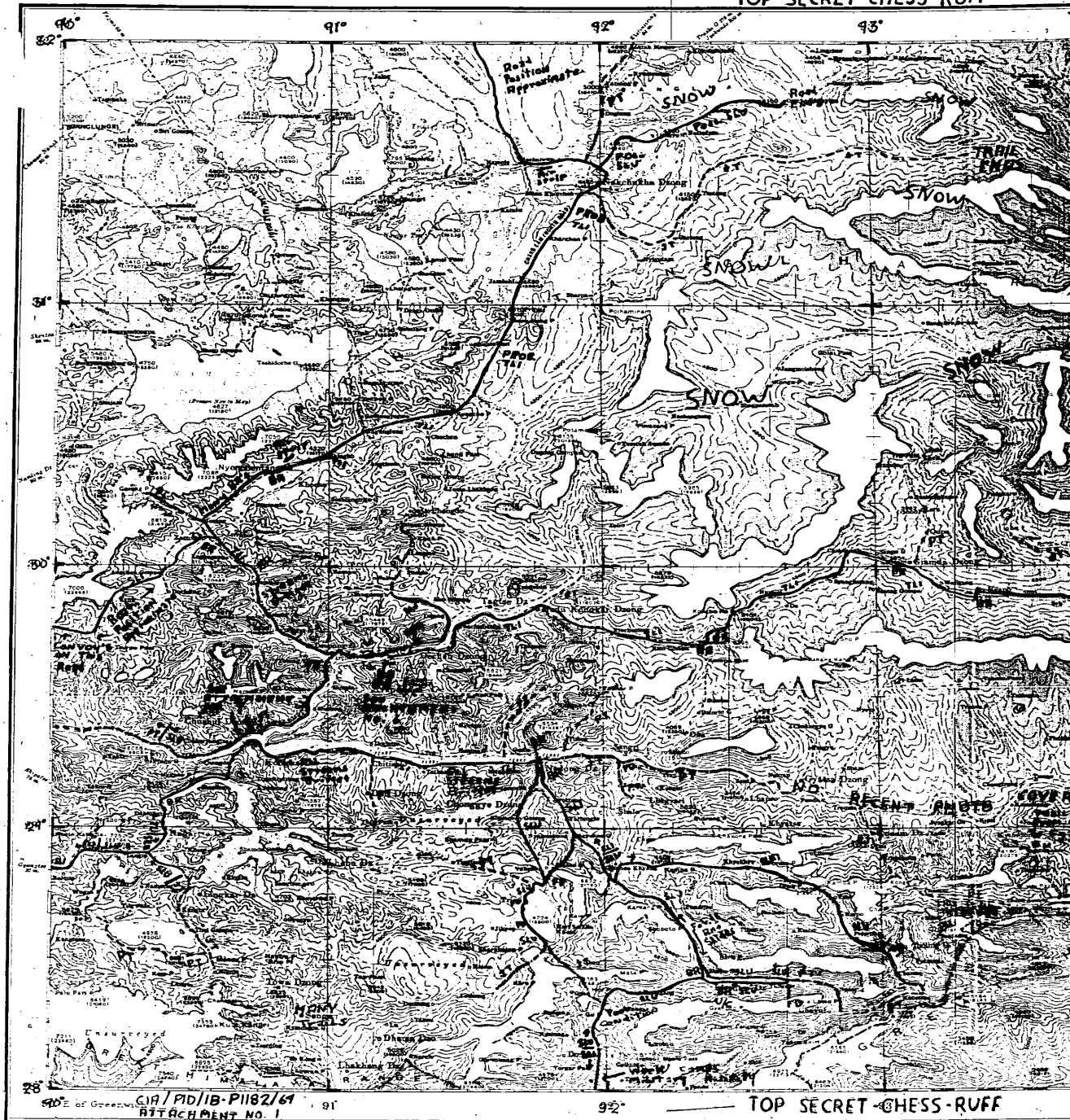
$$\sum_{i=1}^n (x_i - \bar{x})^2 = \sum_{i=1}^n x_i^2 - n\bar{x}^2 = 1 - \frac{1}{n} \left(\sum_{i=1}^n x_i \right)^2 = 1 - \frac{1}{n} (100)^2 = 1 - 10 = -9$$

REFERENCE

EASTERN ASIA 1:1,000,000

For use by
War and Navy Department Agencies
*Not for sale or distribution

LHASA
TOP SECRET-CHES-RUFF



AMS 1301 (G.S. 2555)
First Survey of this Edition, 1944-AMS 1, 1945; AMS 2, 1945
REFERENCE
1:500,000

Scale of Map 1:1,000,000
TOP SECRET-CHES-RUFF

HIMALAYA

TOP SECRET OWISS

25X1D

BRIDGE EXTENDING FROM NORTH BANK

TOP SECRET OWISS

25X1D

TOP SECRET OWSS

25X1D

TOP SECRET OWSS

TOP SECRET OWSS

TOP SECRET OWSS

TOP SECRET C-1000

25X1D

TOP SECRET C-1000

TOP SECRET C-1000

TOP SECRET CUBA

25X1D

MIATA BRIDGE

TOP SECRET CUBA

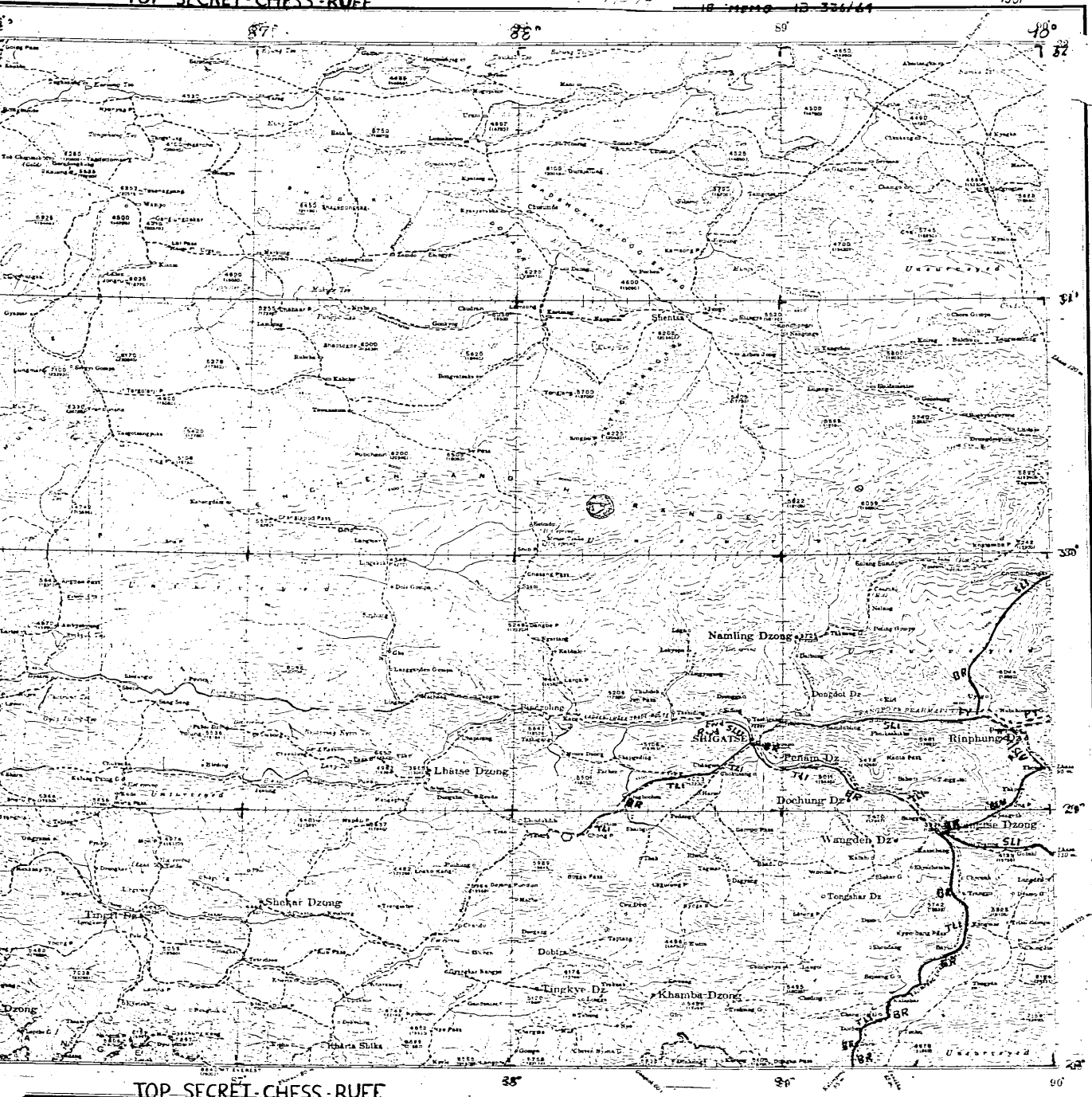
TSANGPO
TOP SECRET-CHES-RUFF

EDITION 1-GSGS

TCS NO. 7766/64

REF TO T-2 MAP AS
SHEET NH 45
SERIES 1301

SERIES 1301
SHEET NH 45
EDITION 1-GSGS



TOP SECRET-CHES-RUFF

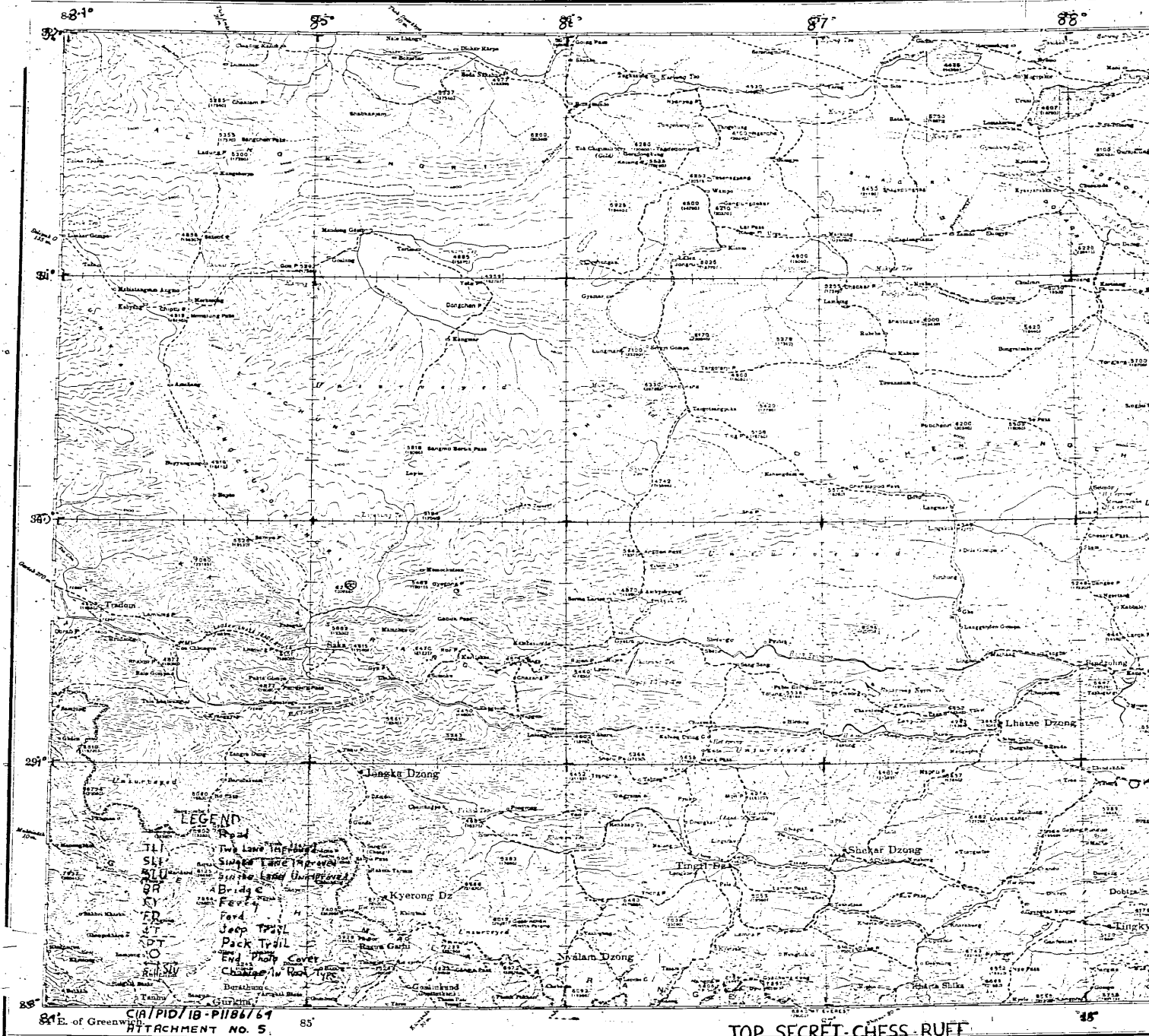
Scale 1:100,000

PRINTED BY ARMY MAP SERVICE CORPS OF ENGINEERS

REFERENCE

WORLD (ASIA) 1:1,000,000

TSANGPO
TOP SECRET-CHESS-RUEE



84° E. of Greenwich
ATTACHMENT NO. 5

TOP SECRET-CHESS-RUEE

LEGEND
T.L. Two Lane Improved Road
S.L. Single Lane Improved Road
B.L. Bridge
F. Ferry
J.T. Jeep Trail
P.T. Pack Trail
E.P. End of Road
C.P. Change in Road Type
M. Mountain Range
I. Important Peak
P. Place
C. Cape
L. Island
N. Name of capital or other place
S. Shaded quarter of province with a star

English miles 10 5 0
Kilometers 10 5 0
Nautical miles 10 5 0

Scale 1:1,000,000
1 inch = 16 miles
1 centimeter = 1.6 kilometers